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TECHNOLOGY ACCEPTANCE IN MANDATORY INFORMATION SYSTEM USE ENVIRONMENT

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Abstract
This paper aim to explain the acceptance of information technology in mandatory usage. This study uses structural equation modeling with Partial Least Square (PLS) technique to examine the impact of social influence such as subjective norms and task association such as task-technology fit on technology acceptance variables, such as perceived usefulness, perceived ease of use, attitude andsymbolic adoption. These results highlight the importance of positive attitude toward systems formation by the user firstly in order to positively influence symbolic adoption, regarding result of the study that showed attitude is the most determinant construct that influencing symbolic adoption.

Keywords : technology acceptance, subjective norms, task-technology fit, end user computing

INTRODUCTION

Information technology is seen to have played an important role for various organizations. Such as educational institutions, the involvement of information technology, due to its ability in terms of (1) enabling parallelism, (2) facilitating integration, (3) enhancing decision making and (4) minimizing points of contacts [29].

Although information technology is an integral part for the organization and has become a necessity for workers to use information technology in solving organizational tasks, the level of technology use still varied [11]. The obligation of employees to use information technology can negatively affect their feelings and loyalty to the organization [30], such as not satisfactory in supporting their work [1] ; not feel the benefit will use [18]. These conditions indicate the importance of the issues regarding user reactions to information technology. When the system is applied in the organization of information technology into the components together with humans, often causing behavioral problems associated with interaction between human and information technology [21] Preivous studies, such as [9][12], demonstrated that the failure of information systems due to failure to understand user behavior, that resulting in low revenues and ineffective use of information systems by users. When information technology is fully accepted as an integral part of the work process and, if properly motivated end users to expand their efforts in exploration technology, users will receive the technology, in turn, will have an impact, as expected by the organization and it also confirms the importance of studies on the use of

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information technology primarily related to aspects that contribute to the acceptance of information technology [6].

BACKGROUND

Subjective Norms

Social influence plays an important role in human behavior and decision making [2], and has been identified as an important construct in understanding the use of information technology in several previous studies[4][9][26]. One of the dominant conceptualization of social influence is derived from subjective norm on behavioral models of social psychology, the Theory of Reasoned Action and the Theory of Planned Action from Ajzen and Fishbein [3]. Subjective norm is the individual's perception of social reference opinions are considered important by the individual to perform or not perform a specific behavior, acts as a mechanism to accommodate the important influence of others in the organization, such as leadership, both the employer and immediate supervisor (supervisors) and colleagues work [15] [26].

Task-Technology Fit

Task-technology fit as a construct that describes the correspondence between task needs, individual capabilities and functionality of information technology, and is defined as the rate at which the functionality of technology to assist individuals in completing portfolio duties [11]. Task-technology fit involves the suitability of two factors, namely task and technology as a union between task and technology progresses in a consistent and in line.

Usefulness

Usefulness which is the level of the extent to which a person believes that using a technology will enhance his job performance [6][7]. This refers to the word useful that is by Davis (1989) defined as able to use profitably [6]. When someone feels believe that an information technology beneficial to himself, then someone is going to use it, and vice versa when someone does not feel any benefit, it is concerned will not use the technology.

Easy of Use

Ease of use refers to the degree the extent to which a person believes that using a technology will be free from effort [6][7]. It also represents a belief about the decision making process will use a technology related to the level of ease of use. This is based on the definition of the word easy, that is free from difficulty or great effort [6].

Attitudes

Attitude is one thing to learn all the tendencies of actions, either favorable or unfavorable, human purpose, object, idea or situation [15]. Attitude is a critical factor in understanding the use of information systems is mandatory because it demonstrates the level of user satisfaction over the system [4]. Employees who have a positive attitude on the system will take time and effort to find new ways to use the system, which in this case is called by extra-role behavior. Vice versa when employees are being negative towards the system, the employee will use the system to the extent that is charged to them, or referred to in-role behavior [38].

Symbolic Adoption

The symbolic adoption is a term to refer to the mental acceptance of the components of thinking about innovation, both material and non-material after going through processing attribute information associated with a particular innovation, obtained through the processing component of innovative thinking, which includes the stages of awareness, information and evaluation[29].

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RESEARCH ISSUES AND METHODS

One of the dominant studies in research on behavioral aspects is a study that focuses on aspects of individual acceptance of technology, following developed model namely the Technology Acceptance Model [6][7]. Recent developments, researchers sought to develop information systems technology acceptance model, especially with external variables introduced into the cause (antecedent) of the variables that exist in information technology acceptance model. The results of previous studies showed that the low strength of the explanation (explanatory power) of the models used to explain phenomena in information technology acceptance [7][8][17][35][36]. This shows the need for additional factors in future studies to strengthen the description of user acceptance [23]. This research uses two external variables : Subjective Norms and Task-technology Fit as a predictor of acceptance technology on mandatory information system usage. According with the use of the dependent variable as a measure of behavior in information technology use in mandatory environments, this study use symbolic adoption to measure acceptance in the context of the use of information technology is required as suggested by previous researchers [21][22][23][24].

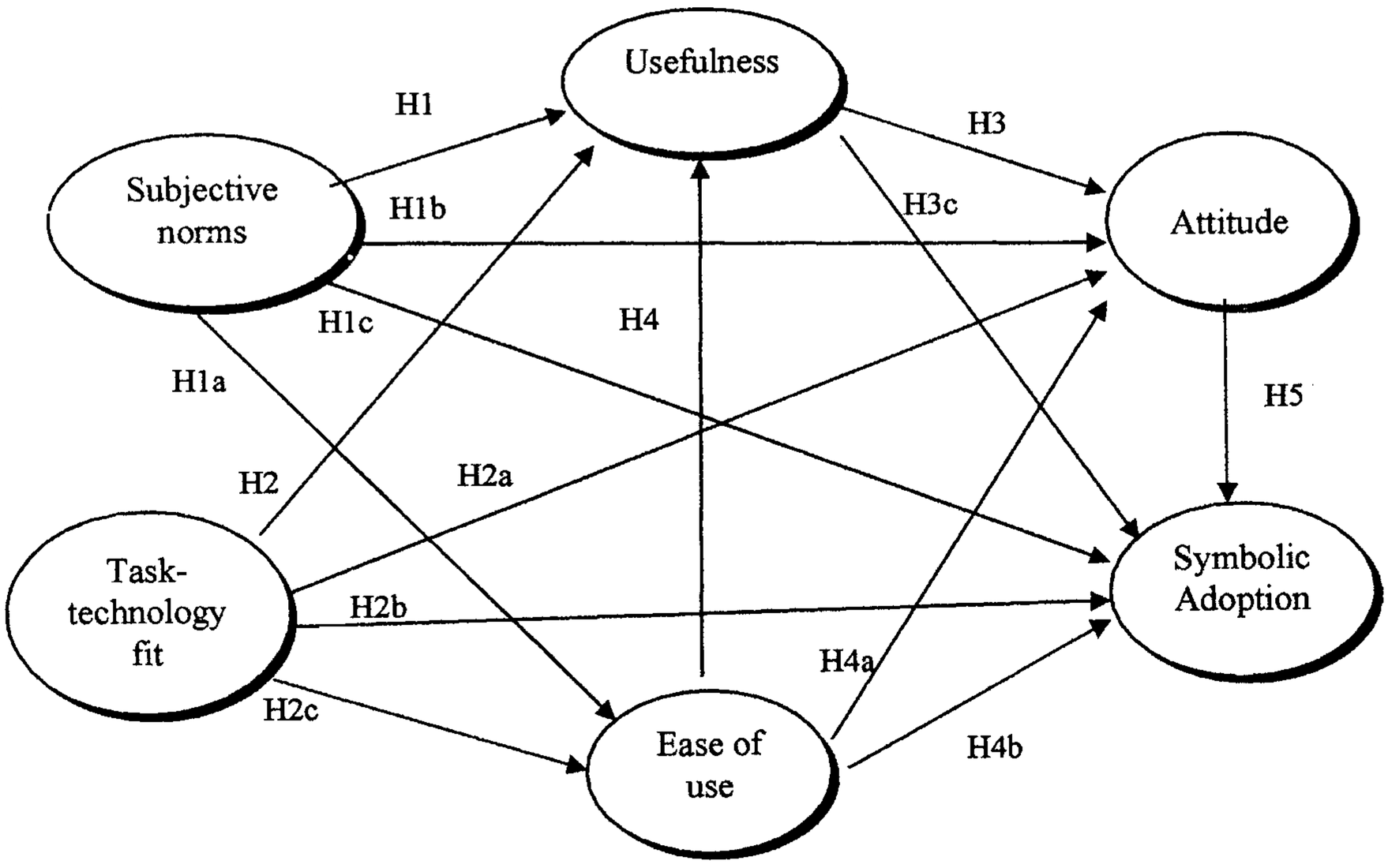

Figure.1 : Research Model

Based on Figure 2 and the foregoing description, the following hypotheses are proposed:

H1. Subjective Norms has a significant effect on usefulness. (H1a) ease of use, (H1b) attitude, and (H1c) symbolic adoption.

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H2. Task-technology fit has a significant effect on usefulness, (H2a) ease of use, (H2b) attitude, and (H2c) symbolic adoption.
H3. Usefulness has a significant effect on attitude, (H3a) symbolic adoption.
H4. Ease of use has a significant effect on usefulness, (H4a) attitude, (H4b) symbolic adoption.
H5. Attitude has a significant effect on symbolic adoption.

The method selected for data collection is the survey. Item for all construct in this study measured previous studies by a five-point Likert scale[6][10][16][20][28][29][36][37]. All items are measured using a five-point Likert. The research model is validated through survey of 136 users of Academic Information System at the 28 Private Higher Insitution in Special Region of Yogyakarta and overall instrument was have adequate construct validity and reliability. For assesing measurement model and hypotheses testing by fitting structural equation. Varian-base structural equation modeling with Partial Least Square (PLS) technique was chosen to analyze the data in this study. Goodness of Fit Model R-square is measured using the dependent latent variable with the same interpretation to the regression; Q-Square predictive relevance for the structural model, measure how well the observations generated by the model and its parameters estimation. Hypothesis testing is evaluated by using t-test statistics obtained through bootstrapping procedure.

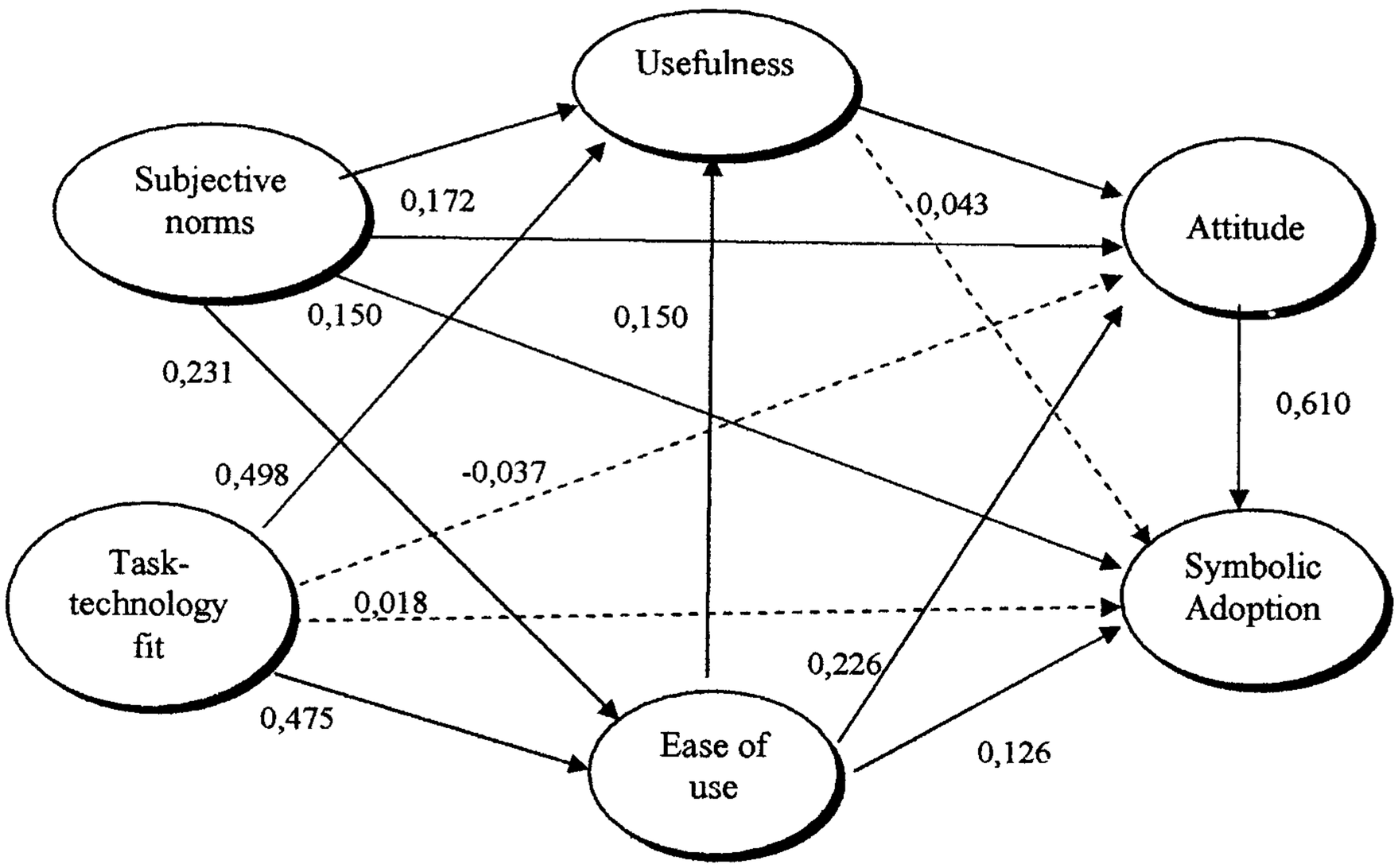

Figure.2 : Empirical result of study

Figure 2 displays the result from the structural model and the results are as follows. Consistent with hypothesis 1, 1a, 1b and 1c. subjective norms has a significant effect on usefulness, ease of use, attitude and symbolic adoption. The data shows that task-technology fit has a significant effect on usefulness (H2) and ease of use (H2a). Usefulness has a significant effect on attitude. Consistent with hypothesis 4, 4a and 4b, ease of use has a significant effect on usefulness, attitude and symbolic adoption. Figure 2 also shows that attitude has a significant effect on symbolic adoption and supporting hypotheses H5.

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Testing Goodness of Fit in the inner model using predictive value-relevance. The R2 of each endogenous variable in this study based on the calculation results show predictive value-relevance of 0.9608 or 96.08% and was above 80%, and the model empirically have predictive value relevant. Predictive value relevance of 96.08% indicates that the diversity of data that can be explained by the model amounted to 96.08% or in other words the information contained in 96.08% of data can be explained by the model. The remaining 3.92% is explained by other variables which has not contained in the model.

CONCLUSION

This study proposed a revised Technology Acceptance Model to explaining technology acceptance in mandatory use environment. By integrating subjective norms and task-technology fit as an external variables to determine TAM variables such as usefulness, ease of use, attitude and symbolic adoption as a proposed measure for acceptance in mandatory system usage. The study result indicate that the research model constructs capable of confirming the relationship between the main determinants of acceptance of information technology. This study is able to explain symbolic adoption as the main measure of technology acceptance in the context of the mandatory system usage.

There are some limitations in this study. First, The research object in this study, limited to education sector especially higher education institution, need a broader perspective for investigating the model in order to gain value of generalization of research results. Second, This study did not analyze the characteristics of respondents by age related to the adoption of information technology, so that researchers do not know of any differences in the adoption process by age. Third, this study did not investigate user experience to use of information systems into the model. Experience is an important aspect in the adoption process that acts as a distinctive aspect in the process of adoption of information systems. No inclusion user experience to make the researcher could not reveal more about the differences in the adoption process to make information systems based on user experience in using information systems.

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